Systematic Review

Does the establishment of universal health coverage drive the foundation of postgraduate education for primary care physicians?

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ABSTRAK

Latar belakang: *Pengembangan program pendidikan pasca sarjana bagi dokter di layanan primer di negara yang telah mencapai Jaminan Kesehatan Semesta (JKS) sangat penting dipelajari dalam mendukung negara berkembang yang sedang menuju pencapaian JKS tahun 2030. Review ini bertujuan mendapatkan gambaran pendidikan pasca sarjana bagi dokter di layanan primer di negara-negara yang telah mencapai JKS.*

Metode: *Sebuah review terhadap literatur yang dipublikasi dan dokumen resmi yang diperoleh dari laman berbagai organisasi kesehatan dan perkumpulan dokter di layanan primer regional maupun global seperti* World Health Organization *(WHO),* World Organization of Family Doctors *(WONCA),* European Forum for Primary Care, European Union of General Practitioners *(GP)/*Family Physicians *(FP),* European Academy of Teachers in GP/Family Medicine *(FM), serta laman organisasi dokter praktik umum/keluarga di berbagai negara. Daftar negara yang telah mencapai JKS diidentifikasi melalui basis data WHO dan International Labor Organization.*

Hasil: *Sejumlah 72 negara yang telah mencapai JKS berhasil diidentifikasi. Pendidikan pasca sarjana bagi dokter di layanan primer ditemukan di 62 (86%) negara. Pernyataan bahwa pengembangan pendidikan terkait dengan kebijakan JKS ditemukan pada 11 (18%) negara. Terdapat berbagai nama program, yang tersering "*general practice*" dan "*family medicine*". Di 33 negara (53%), pendidikan wajib diikuti oleh mereka yang ingin berpraktik di layanan primer. Lama pendidikan berkisar antara 2–6 tahun, dengan jumlah terbanyak tiga tahun.*

Kesimpulan: *JKS bukanlah alasan utama pengembangan pendidikan pasca sarjana bagi dokter di layanan primer. Akan tetapi, hampir semua negara yang telah mencapai JKS berupaya serius mengembangkan pendidikan tersebut sebagai bagian dari reformasi kesehatan dalam meningkatkan derajat kesehatan nasional.*

ABSTRACT

Background: Studying the formation of postgraduate training in primary care within countries which has attained Universal Health Coverage (UHC) is important to support the development of similar training in low-and middle-income countries aiming to achieve UHC by 2030. This review aims to describe the state of postgraduate training for primary care physicians in UHC-attaining countries.

Methods: A literature review of published literature and official documents from the websites of regional and global health/primary care organizations or societies such as World Health Organization (WHO), World Organization of Family Doctors (WONCA), European Forum for Primary Care, European Union of General Practitioners (GP)/Family Physicians (FP), European Academy of Teachers in GP/Family Medicine (FM), as well as the websites of GP/FP organizations in each of the respective countries. The list of UHC attained countries were identified through WHO and International Labor Organization databases.

Results: A total number of 72 UHC-attained countries were identified. Postgraduate education for primary care physicians exists in 62 countries (86%). Explicit statements that establish primary care postgraduate training were corresponded with the policy on UHC is found in 11 countries (18%). The naming of the program varies, general practice and family medicine were the commonest. In 33 countries (53%), physicians are required to undertake training to practice in primary level. The program duration ranged from 2–6 years with 3 years for the majority.

Conclusion: Although UHC is not the principal driving force for the establishment of postgraduate training for primary care physicians in many countries, most UHC-attaining countries make substantial endeavor to ensure its formation as a part of their health care reform to improve national health.

Keywords: family medicine, general practice, primary care physician, universal health coverage, postgraduate training

pISSN: 0853-1773 • eISSN: 2252-8083 • https://doi.org/10.13181/mji.v26i2.1857 • Med J Indones. 2017;26:141–51

• Received 09 Feb 2017 • Accepted 31 May 2017

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Since the 1978 Alma Ata declaration of "Health for All" by countries attending the International Conference on Primary Health Care jointly organized by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), most nations acknowledged that health provision is a fundamental human right and that primary health care is the key to ensure the fulfillment of adequate health.[1] However, although people are generally healthier, wealthier and live longer today than 39 years ago, health inequity persisted in many countries. The failure to achieve "health for all" has propelled a campaign for Primary Health Care Reforms which comprised universal health coverage (UHC) reforms, service delivery reforms, public policy reforms, and leadership reforms.[2]

In September 2015, the United Nations General Assembly launched the Sustainable Development Goals (SDGs) which included the third goal "to ensure healthy lives and promote well-being for all at all ages" that should be achieved in 2030.[3] It is believed that development of systems capable of delivering health rely on the existence of health financing mechanisms that offer universal access to health. One of the targets to accomplish the goal is "the attainment of universal health coverage which includes financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all".[4]

According to WHO, universal coverage is defined as "access to key promotive, preventive, curative, and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access." The principle of financial-risk protection ensures that the cost of care does not put people at risk of financial catastrophe. A related objective of health-financing policy is equity in financing: households contribute to the cost of health care on the basis of ability to pay.[5]

Reform in service delivery in order to support the affordable cost and equity in access incorporates the availability of health care providers competent in delivering a person-centered, continuing, comprehensive and integrated health service; it is responsible for a defined population and able to coordinate support from hospitals, specialized services and civil society organizations.[2] Therefore, the establishment of special training program for primary care physicians (general practitioner or family physician) is considered integral to primary health care (PHC) reforms in some countries.[6]

Even though this discipline is well established and mainstreamed in most developed nations, it is still relatively new in low and middle-income countries. Studying the formation of postgraduate training in primary care within countries which have attained UHC is important to support the development of such education in low-and middle-income countries aiming to achieve UHC by 2030. In this review, we aim to describe the existence of the postgraduate training for primary care physicians in countries which have attained UHC.

METHODS

This study is a review of academic literature and official documents, both nationally and internationally. Review also includes secondary data collection from publicly available data and reports by major international organizations such as International Labor Organization (ILO) and WHO.

Identification of countries which have attained universal health coverage

A report by Stuckler et al[5] identified 58 countries which have achieved UHC based on the following criteria.[1] Healthcare legislation explicitly states that the entire population is covered under a specific health plan, including availability of package of services with identifiable year (and such legislative articles can be identified online);[2] More than 90% of the residents of those country must have access to skilled attendance at birth and health care insurance (i.e. social health insurance, state coverage, private health insurance, and employer-based insurance), which serve as broader proxy indicators for access to care, using the latest data available and based on the ILO threshold.

To identify additional countries which meet the Stuckler criteria of attaining UHC, the list is updated using the ILO databases on social health protection coverage,[7] supplemented with the data about access to skilled attendance at birth from the WHO Global Health Observatory data

repository.[8] Fourteen countries were added, thereby increasing to 72 countries included in this report.

The literature review methods

To identify the existence of postgraduate training for primary care physicians in the 72 UHC-attaining countries, online literature search was conducted using medical databases such as Medline and Google Scholar in February 2017. The keywords "postgraduate training" AND ("primary care" OR "general practice" OR "family medicine") both as medical subject headings (MeSH) terms and free-texts, were utilized to identify reviews, surveys and country specific reports with regards to the establishment of postgraduate training on primary care/general practice/family medicine in those countries. A hand search was also conducted on the websites of regional and global health/primary care organizations or societies such as WHO, WONCA, European Forum for Primary Care, European Union of GP/FP, European Academy of Teachers in GP/FM, etc, as well as on the websites of GP/FP organizations in each respective country.

To explore the connection between establishment of primary care physician postgraduate education with UHC, another literature search was conducted using the terms "universal health coverage" OR "universal coverage" AND the name of each of the countries in the list. We concluded the relationship between the establishment of primary care specialist in one country and UHC policy if we found any statement specifying that primary care physician postgraduate education was started or endorsed as part of the UHC implementation policy in the respective countries.

RESULTS

Postgraduate education for primary care physicians exists in 62 of 72 countries (86%) which attained UHC as shown in Table 1 although in Austria and Brunei Darussalam it is not recognized as specialist degree. The existence of the education could not be determined in Andorra, Antigua, and Mauritius. Only in 11 of 62 countries (18%) showed explicit statement that the establishment of primary care postgraduate education corresponded with the policy on UHC. Statements that education is established or reinforced as part of health care reforms through primary health care movement was

Table 1. Availability of primary care physician post-graduate education in the countries which attained universal health coverage

Andorra*	Costa Rica	Kuwait	Rwanda‡
Antigua*	Croatia	Kyrgyzstan§	Singapore
Argentina	Cuba§	Lithuania	Slovakia
Armenia§	Cyprus	Luxembourg	Slovenia§
Australia	Czech Republic	Malaysia	South Africa
Austria	Denmark	Malta	South Korea
Azerbaijan†	Estonia§	Mauritius*	Spain§
Bahrain	Fiji†	Moldova§	Sri Lanka
Belarus‡	Finland	Mongolia‡	Sweden
Belgium	France	Netherlands	Switzerland
Bosnia Herzegovina	Germany	New Zealand	Taiwan
Botswana	Greece	Norway	Thailand§
Brazil	Hungary	Oman	Tunisia‡
Brunei Darussalam	Iceland	Panama	United Arab Emirates (UAE)
Bulgaria	Ireland	Poland	Ukraine§
Canada	Israel	Portugal§	United Kingdom
Chile	Italy	Qatar	Uzbekistan‡
China	Japan	Rumania§	Venezuela

Bold= Primary care physicians post-graduate education are available; *= no information on the availability of post-graduate education for primary care physicians; †= post-graduate education is in-development; ‡= no post-graduate education; §= the establishment of post-graduate education corresponds to the policy on UHC

Table 2. Characteristics of the primary care physician post-graduate education in countries which attained universal health coverage

Country	Name of program	Year start	Mandatory	Entry	Duration (years)	Defined curriculum	Formal assessment	University affiliation
Argentina[13–16]	General Medicine and Family Medicine	1970 (GM) 1983 (FM)	No	PGY1	3	Yes	Yes	Weak
Armenia[17, 18]	Family Medicine	2000	No data	-	2	Yes	Yes	Strong
Australia[19, 20]	General Practice	1973	Yes	PGY2	3	Yes	Yes	Weak
Austria[21–26]	General Practice	-	Yes	PGY1	3	No	Yes	Weak
Bahrain[27–30]	Family Medicine	1978	Yes	PGY2	4	Yes	Yes	Weak
Belgium[24, 31, 32]	General Practice	-	Yes	PGY1	3	Yes	-	Weak
Bosnia – Herzegovina[24, 33–36]	Family Medicine	1997	Yes	-	4	Yes	Yes	Strong
Botswana[37–39]	Family Medicine	2011	-	PGY3	4	Yes	-	Strong
Brazil[40, 41]	Family Medicine	1980	No	PGY1	3	Yes	Yes	Weak
Brunei Darussalam[42, 43]	Primary Health Care	2009	Yes	PGY1	4	Yes	Yes	Strong
Bulgaria[44, 45]	General Practice	1998	Yes	-	3	Yes	Yes	Strong
Canada[19, 46, 47]	Family Medicine	1962	Yes	PGY1	2	Yes	Yes	Strong
Chile[16, 48–50]	Family Medicine	1982	No	PGY1	3	Yes	Yes	Strong
China[51–54]	Family Medicine	2000	No	PGY1	3	Yes	Yes	Weak
Costa Rica[16, 55, 56]	Family and Community Medicine	1987	No	PGY2	3	Yes	No	Strong
Croatia[24, 57, 58]	General Practice	1961	Yes	PGY2	4	Yes	Yes	Strong
Cuba[16, 59–61]	Comprehensive General Medicine	1985	Yes	PGY3	4	Yes	Yes	Strong
Cyprus[24, 62, 63]	General /Family Medicine	2000	No	-	4	Yes	Yes	Weak
Czech Republic[24, 45, 64, 65]	General Practice	1978	Yes	PGY1	5	Yes	Yes	Weak
Denmark[66–68]	General Practice	-	Yes	-	6	Yes	Yes	-
Estonia[69–71]	Family Medicine	1991	Yes	PGY1	3	Yes	Yes	Strong
Finland[72–74]	General Practice	1961	No	PGY1	6	Yes	Yes	Strong
France[75–77]	General Practice	-	Yes	PGY1	3	Yes	Yes	Strong
Germany[77–79]	General Practice	1967	No	PGY1	5	No	Yes	Weak
Greece[24, 80, 81]	General Practice	1964	Yes	PGY1	4	-	-	-
Hungary[45, 82, 83]	Family Medicine	1999	Yes	PGY1	3	Yes	Yes	Strong
Iceland[84–88]	General Practice	1970	-	PGY2	4.5	Yes	-	Strong
Ireland[19, 24, 89–91]	General Practice	1972	Yes	PGY2	4	Yes	Yes	Weak
Israel[24, 92]	Family Medicine	1977	No	PGY2	4	Yes	Yes	Strong
Italy[24, 26, 93, 94]	General Practice	1985	Yes	PGY2	3	-	-	Weak

Table 2. Characteristics of the primary care physician post-graduate education in countries which attained universal health coverage (continued)

Country	Name of program	Year start	Mandatory	Entry	Duration (years)	Defined curriculum	Formal assessment	University affiliation
Japan[95, 96]	General Medicine	2015	Yes	PGY3	3	Yes	Yes	Strong
Kuwait[97–99]	Family Medicine	1983	-	PGY2	5	Yes	Yes	Strong
Kyrgyzstan[100, 101]	Family Medicine	1998	No	PGY1	2	Yes	Yes	Weak
Lithuania[102, 103]	Family Medicine	1992	Yes	PGY2	3	Yes	Yes	Strong
Luxembourg[104]	General Practice	2004	Yes	PGY1	3	Yes	Yes	-
Malaysia[105–107]	Family Medicine	1993	No	PGY2	4	Yes	Yes	Strong
Malta[108]	Family Medicine	2007	Yes	PGY3	3	Yes	Yes	Weak
Moldova[109–111]	Family Medicine	1996	No	PGY1	3	Yes	Yes	Strong
Netherlands[24, 77, 112, 113]	General Practice	1974	Yes	PGY1	3	Yes	Yes	Strong
New Zealand[47]	General Practice	-	Yes	PGY2	3	Yes	Yes	Weak
Norway[24, 114–116]	General Practice and Community Medicine	1985 (GP)	No	PGY2	5	Yes	-	Weak
Oman[117]	Family Medicine	1994	No	-	4	Yes	Yes	Strong
Panama[16, 118]	Family Medicine	1976	No	PGY3	3	-	No	Strong
Poland[45, 119]	Family Medicine	1994	No	PGY1	4	Yes	Yes	Strong
Portugal[24, 120, 121]	Family Medicine	1987	Yes	PGY1	4	Yes	Yes	Weak
Qatar[27, 122]	Family Medicine	1994	-	PGY1	4	Yes	Yes	Strong
Romania[24, 123]	Family Medicine	1990	Yes	PGY1	3	Yes	Yes	Strong
Singapore[124, 125]	Family Medicine	1987	No	PGY1	3	Yes	Yes	Strong
Slovakia[45, 126]	General Practice	1978	Yes	PGY1	5	Yes	Yes	Strong
Slovenia[45, 127, 128]	Family Medicine	2000	Yes	PGY3	4	Yes	Yes	Strong
South Africa[53]	Family Medicine	1968	No	PGY3	4	Yes	Yes	Strong
South Korea[129, 130]	Family Medicine	1970	No	PGY2	3	Yes	-	Strong
Spain[131, 132]	Family Medicine	1979	Yes	PGY1	4	Yes	-	Weak
Sri Lanka[133–135]	Family Medicine	1979	No	PGY1	2	Yes	Yes	Strong
Sweden[22, 24, 26, 136–138]	Family Medicine	1982	Yes	PGY1	5	Yes	Yes	Strong
Switzerland[24, 26, 139–141]	Family Medicine	-	Yes	PGY1	5	No	No	Weak
Taiwan[142–145]	Family Medicine	1979	Yes	PGY1	3	Yes	Yes	Strong
Thailand[146–149]	Family Medicine	1998	No	PGY1	3	Yes	Yes	Weak
United Arab Emirates (UAE)[28, 99, 150]	Family Medicine	1994	-	PGY1	3	Yes	-	Strong
Ukraine[151–153]	Family Medicine	1992	No	PGY1	2	Yes	Yes	Strong
United Kingdom[19, 154–156]	General Practice	1977	Yes	PGY3	3	Yes	Yes	Weak
Venezuela[16, 157–159]	Family Medicine and General Comprehensive Medicine	1980 (FM) 2006 (GCM)	No	PGY3	3	Yes	Yes	Strong

Empty cells mean no information could be acquired; PGY= post graduate year; GP=general practitioner; FM= family medicine; GCM= general comprehensive medicine

found in several countries such as Brazil, China and South Africa. Other statement found was the recognition of the need for professional development of generalist physicians as a distinct medical discipline with its own training which can be identified in pioneering countries for the development of general practice/family medicine, such Canada, United Kingdom, Australia, and the Netherlands. Becoming members of regional organization requiring countries to adhere to standard in health care including training of primary care physicians was also influential in the establishment of training on primary care physicians as observed in the east of Europe and Arab gulf countries.

Table 2 displayed the features of the primary care physician postgraduate education in the 62 countries. The name of the program varies; general practice and family medicine were mostly described. In Argentina, Norway, and Venezuela, two postgraduate programs with different name exists. In Czech Republic, there are two separate groups of GPs, who never work in combined practices: GPs for adults and practitioners for children and adolescents, each with their own training program. The mandatory status of the program for those who wants to practice in primary health care could be ascertained in 33 of 62 (53%) countries. The duration of the program ranges from 2–6 years, in which three years is the most common.

DISCUSSION

Postgraduate education for primary care physicians exists in 86% countries which attained UHC. The link between the establishments of postgraduate education and the UHC implementation policy is explicitly stated in only 18% of the countries.

In many industrialized countries like Canada, United Kingdom, Australia, or the Netherlands, the postgraduate education for primary care physicians have been established since the 1960s or 1970s. It was fostered as a response to the declining general practice due to the rapid development of medical specialization in the first half of the twentieth century. The age of specialization resulted in the fragmentation of medical care which led to deterioration of doctor-patient relationship. A new kind of generalist with special training and qualifications armed with a defined set of skills is needed.[9] The Alma-Ata declaration in 1978 which emphasized the importance of PHC to achieve "Health for All"[1] further expanded the development of special training of primary care physicians in the wider part of the world since successful PHC systems usually involve a primary care doctor with postgraduate training in family medicine or general practice.[2]

Evidences from various studies on the effectiveness of strong PHC showed that with PHC specialist physicians holding the central role, there is an improvement of various health outcomes and with better use of health cost. A systematic review by Engström et al[10] reported that an increase in the number of, or ratio of primary health care specialist physicians compared to total number of doctors, was significantly associated with lower mortality rates, neonatal death rate, rate of low birth weight; increased life expectancy and decreased total mortality and stroke. The same review also revealed that higher proportions of primary care physicians were associated with lower payments for both in-hospital and out-of-hospital care while a greater supply of family doctors was significantly associated with lower reimbursements for outpatient care.

The reason why in some countries in this study, the establishment of postgraduate training for primary care physicians is linked to the effort in attaining the UHC could be found in a review by Kruk et al[11] This review described how primary care strengthening contributed to increased access to services as well as equity in access and outcomes. Primary care emerged as foundation for health systems strengthening in the developing world, by improving cost efficiency and responsiveness. Similar observation has also been emphasized by Barbara Starfield.[12]

Our study is the first attempt to find link between the establishment of training for primary care physicians with universal health coverage. However, we acknowledged limitations of our study. The main source of limitation is that it relied heavily on the published literature which in some countries are very limited and outdated. Our decision to only including literature in English also limited information from the non-English speaking countries.

In conclusion, although UHC is not the principal driver of the establishment of postgraduate primary care physician education in many countries, most UHC-attaining countries made substantial endeavor to ensure the formation of those trainings as part of their health care reform to improve the national health.

Conflict of interest

The authors affirm no conflict of interest in this study.

Acknowledgment

The authors appreciate the valuable inputs from Hadyana Sukandar and Dwi Agustian during the literature review process and the development of report.

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